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(54) Title: LATE TRANSITION METAL CATALYSTS FOR OLEFIN POLYMERIZATION AND OLIGOMERIZATION

(57) Abstract: This invention relates to a transition metal compound represented by the formula LMX wherein M is a Group 3 to 11 metal L is a bulky bidentate or tridentate neutral ligand that is bonded to M by two or three heteroatoms and at least one heteroatom is nitrogen; X is a substituted or unsubstituted catecholate ligand provided that the substituted catecholate ligand does not contain a 1,2-diketone functionality.



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CLASSIFICATION OF SUBJECT MATTER C 7 CO7F15/04 CO7F ÎPC 7 CO7F15/00 C08F10/00 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) CO7F CO8F IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) CHEM ABS Data, EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to daim No. Citation of document, with Indication, where appropriate, of the relevant passages Category ° 1 ABAKUMOV, G. A. ET AL: Α "Bis(1.4-di-tert-butyl-1,4-diazabutadiene) copper(I) '(3,6-di-tert-butyl-obenzosemiquinono)(3,6-di-tert-butylcatecho lato)cuprate(II)!. The molecula structure and intramolecular electron transfer" RUSSIAN CHEMICAL BULLETIN (TRANSLATION OF IZVESTIYA AKADEMII NAUK, SERIYA KHIMICHESKAYA) (2001), 50(11), 2193-2199, 2001, XP002228902 the whole document 1-26 WO OO 010945 A (E.I.DU PONT DE NEMOURS AND Α COMPANY) 2 March 2000 (2000-03-02) cited in the application the whole document Patent family members are listed in annex. Further documents are listed in the continuation of box C. X Special categories of cited documents: *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance Invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *E* earlier document but published on or after the International filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-O document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the International search 30/10/2003 21 October 2003

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Internation Application No
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C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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